



NOAA
FISHERIES

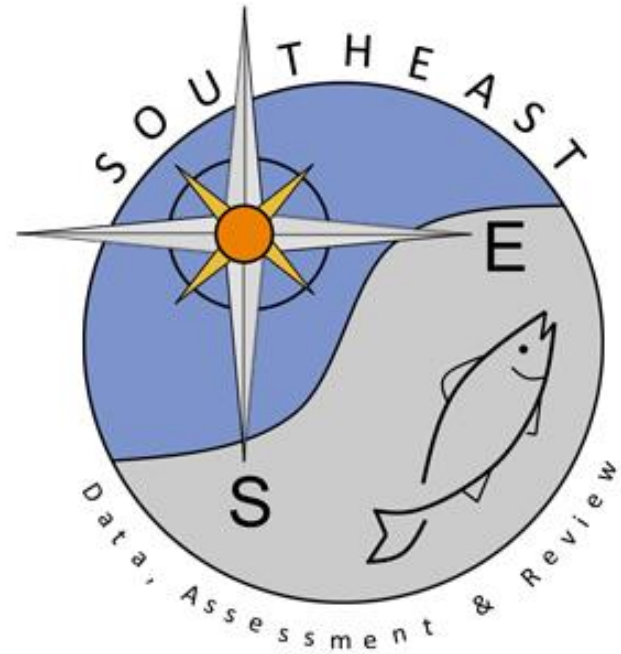
Atlantic Shark Stock Assessments

HMS Advisory Panel Meeting
Silver Spring, MD

September 9, 2015

Outline

- Assessment status
- Upcoming assessments
- Assessment prioritization document
- Future assessments



Assessment Status -- Pelagic Sharks

- International assessments through ICCAT
- One stock for U.S. management purposes



Species	Most Recent	Overfished	Overfishing	Rebuilding Started	Rebuilding Ends
N.W. Atl. Porbeagle	2009	Yes	No	2008 (Amend. 2)	2108
N. Atl. Blue	2008	No	No	NA	NA
N. Atl. Shortfin mako	2012	No	No	NA	NA
All other pelagic sharks	None	Unknown	Unknown	NA	NA

Assessment status -- Large Coastal Sharks

- Domestic assessments through SEDAR
- Some stocks split between Atlantic and GOM regions



Species or Management Group	Most Recent Assessment	Overfished	Overfishing	Rebuilding Started	Rebuilding Ends
Atlantic region					
Aggregated LCS	None	Unknown	Unknown	NA	NA
Blacktip	2006	Unknown	Unknown	NA	NA
Gulf of Mexico region					
Aggregated LCS	None	Unknown	Unknown	NA	NA
Blacktip	2012	No	No	NA	NA
One stock - Atlantic and Gulf of Mexico					
Sandbar	2010	Yes	No	2005 (Amend. 2)	2070
Sc. Hammerhead	2009	Yes	Yes	2013 (Amend. 5a)	2023

Current assessments -- Small Coastal Sharks

- Domestic assessments through SEDAR
- Some stocks split between Atlantic and GOM regions



Species	Most Recent Assessment	Overfished	Overfishing	Rebuilding Started	Rebuilding Ends
Atlantic region					
Atl. Sharpnose	2013	No	No	NA	NA
Blacknose	2010	Yes	Yes	2013 (Amend. 5a)	2043
Bonnethead	2013	Unknown	Unknown	NA	NA
Gulf of Mexico region					
Atl. Sharpnose	2013	No	No	NA	NA
Blacknose	2010	Unknown	Unknown	NA	NA
Bonnethead	2013	Unknown	Unknown	NA	NA
One stock - Atlantic and Gulf of Mexico					
Finetooth	2007	No	No	NA	NA

Current assessments -- Other sharks

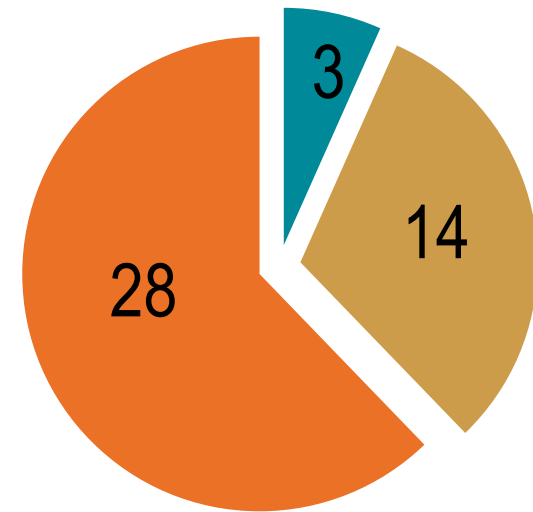
- Domestic assessments through SEDAR
- Some stocks split between Atlantic and GOM regions



Species or Management Group	Most Recent Assessment	Overfished	Overfishing	Rebuilding Started	Rebuilding Ends
Prohibited Sharks					
Dusky	2010	Yes	Yes	2008 (Amend. 2)	2108
All other prohibited sharks	NA	Unknown	Unknown	NA	NA
Smoothhound Sharks					
Smooth dogfish (Atl. only)	2015	No	No	NA	NA
Smoothhound (GOM only)	2015	No	No	NA	NA

Current assessments and Resources

- 42 species = 45 known stocks
- 2 NMFS stock assessment scientists
- Approximately one “big” and one “small” assessment per year
- SEDAR
 - “benchmark” assessment lasts > 1 year
 - “update” assessment < 1 year
- ICCAT assessment <1 year
- Working on method to assess data poor sharks
- Most sharks need a “benchmark” assessment due to changing data, changing info on stocks, and changing assessment methodologies



not assessed



assessed
internationally



assessed
domestically

Upcoming Assessments

Year	Species	ICCAT	SEDAR
2015	Blue sharks	X	
	Smoothhound sharks -two stocks		X benchmark started – 2014 finalized – 2015
2016	Shortfin mako	X	
	Dusky sharks		X update
2017	Porbeagle sharks	X	
	Blacktip sharks – Gulf of Mexico region		X update
2018	One benchmark assessment		X benchmark finalized - 2019

Prioritizing Fish Stock Assessments, Aug. 2015

- National Framework designed to:
 - increase efficient use of stock assessment resources
 - increase transparency in decision-making related to stock assessments
- Scores stocks on a regional basis across 14 factors in 5 themes:

Fishery Importance

Commercial Fishery Importance
Recreational Fishery Importance
Importance to Subsistence
Rebuilding Status
Constituent Demand
Non-Catch Value

Stock Status

Relative Stock Abundance
Relative Fishing Mortality

Ecosystem Importance

Key Role in Ecosystem

Assessment Information

Unexpected Changes in Stock Indicators
New Type of Information
Years Assessment Overdue

Stock Biology

Mean Age in Catch (or proxy)
Recruitment Variability

What to assess domestically in 2018?

- Most requests for sandbar and Atlantic blacktip, although other requests for hammerhead sharks, lemon sharks, several prohibited species

	Sandbar	Atlantic blacktip
Status	Overfished, overfishing not occurring	Unknown
Rebuilding Plan / Assessment	Rebuilding plan ends in 2070 (55 years left); Last assessment (2010) – indicated slightly ahead of plan and overfishing no longer occurring	Last assessment (2006) not accepted
Management	Species managed separately from other sharks; limited quota available to shark research fishery participants only	Species managed as part of the Atlantic Agg. LCS management group; quota linked with hammerhead sharks
Comments	High sandbar shark abundance and that sandbar sharks are eating of non-shark target species. Request ability for all permit holders to land them	High blacktip shark abundance and that blacktip sharks are eating other non-shark target species

Sandbar sharks

- Last two assessments (2006 and 2010) indicated similar rebuilding timeframes (2070 and 2066, respectively)
- As part of Amendment 6 we found that under the existing quota, all directed permit holders outside the research fishery could land 7 sandbar sharks per year.
- AP / Public comment on A6 - amount not enough for the fishery.
- Hypothetical for discussion purposes: What if scientific data supported an increase in quota as a result of a new assessment, and we did not have a research fishery? The following table uses:

- Number of permit holders as of Dec. 2014
- Average weight = 50 lb dw per sandbar shark
- Only: SKD = shark directed permit; SKI = shark incidental permit
- Only commercial landings only; recreational harvest and dead discards are already accounted for
- Does not account for the change in model or other new/changed information that is expected in the next assessment

Number of Sandbar Sharks Per Year: How many is “enough”?

For this example, table is commercial only, assumes dead discards and recreational harvest already accounted for

	Available sharks lb dw	Available sharks mt dw	# per SKD and SKI/Year (464)	# per SKD/Year (206)	# per Active SKD/Year (63)
Current commercial research fishery only quota = 90.7 mt dw	200,000	90.7	9	19	63
	300,000	136.1	13	29	95
	500,000	226.8	22	59	149
	1,000,000	453.6	43	97	317
	2,000,000	907.2	86	194	635
	4,000,000	1,814.4	172	388	1,270

Blacktip sharks

	Gulf of Mexico	Atlantic
Stock Status	Not overfished; no overfishing	Unknown
Management	Managed separately; not quota linked	Managed as part of the Atlantic Agg. LCS management group
Quota	Largest quota in Gulf of Mexico (256.6 mt dw, sub –regions combined)	Atlantic Agg. LCS quota = 168.9 mt dw; quota linked with hammerhead sharks
Upcoming Assessment	2017 (update)	Future assessment could be good or bad

Could Atlantic blacktip sharks follow the same management approach as GOM?

- Life history is similar between the stocks
- At 2006 assessment, harvest in the Atlantic region was much lower than harvest in the Gulf of Mexico region (17.7K and 126.3K fish, respectively)
- In 2013, appears Atlantic harvest continues to be less than GOM harvest:
 - Atl. recreational = 962 fish; GOM recreational 105,315 fish
 - Atl. Commercial = 256,277 lb dw; GOM commercial = 531,440 lb dw
- Managing separately from other sharks depends not only on assessment results but also on what other species are caught when fishing for blacktip sharks

Which ONE species should we assess domestically in 2018?

- Sandbar, Atlantic blacktip, or something else?
- How does that species fit into the prioritization scoring process?

Commercial Fishery Importance	Relative fishing mortality
Recreational Fishery Importance	Key role in ecosystem
Importance to Subsistence	Unexpected changes in stock indicators
Rebuilding Status	New types of information
Constituent Demand	Years assessment overdue
Non-catch value	Mean age in catch
Relative stock abundance	Stock variability

Thank you!

Comments?

